

EPA's "Clean Power Plan" ... Greenhouse Gas Proposed Rule for Existing Units

Background

On June 2, 2014, the Environmental Protection Agency (EPA) released a proposed rule for the regulation of greenhouse gas (GHG) emissions from existing electric generation units.

The "Clean Power Plan" has two main components: 1) state specific emission rate goals to lower carbon dioxide (CO₂) emissions from power plants using a 2012 baseline; and 2) guidelines to help states develop their plans for meeting interim goals starting in 2020 and final goals by 2030 using a series of "building blocks". The building blocks (which collectively represent the "best system of emission reductions", according to EPA) include coal power plant efficiency improvements, re-dispatch from coal to gas, expanded use of low- and zero-carbon generating capacity, and expanded use of demand-side energy efficiency.

Impact to Wisconsin Energy Corporation

While we give EPA credit for creativity and believe EPA tried to give states some flexibility, we are very concerned about the proposed rule, primarily because EPA failed to adequately account for the emissions improvements we've made thus far. While we believe that we are well positioned because of the efficiency of our new plants, here are our initial concerns with the EPA proposed rule:

No Credit for Early Action

Since 2003, we have invested approximately \$9 billion to increase the efficiency at our plants and increase the use of renewable energy sources by adding new generation and state-of-the-art emission control technology to new and existing units; repowering older, less efficient coal plants to combined cycle natural gas plants; adding two of the largest wind farms in Wisconsin and a biomass plant; increasing efficiency; and investing in distribution upgrades.

Our actions resulted in a 50% increase in capacity, more than an 80% reduction in SO₂, NO_x, mercury and particulate matter, and a reduction in CO₂ emissions – bringing our GHG emissions level below our 2000 level.

EPA's proposed rule does not account for any of the major initiatives we undertook prior to 2012. This could result in stranded costs for our customers for some of our power plant investments.

2012 Not a Representative Baseline Year

EPA used 2012 as the baseline year to calculate state specific emission rate goals. However, 2012 is not a representative baseline year ... the economy was still recovering and natural gas prices were unusually low which resulted in a significant reduction in the use of coal generation.

Re-dispatch from Coal to Gas

One of the "building blocks" included in EPA's guidelines for states is a re-dispatch from coal to gas units. This re-dispatch fundamentally changes the operation of our nation's energy markets – from the current practice of dispatching energy based on least cost to what will result in energy based on gas dispatch, possibly increasing costs for our customers.

EPA also assumes a 70% capacity factor for existing combined-cycle natural gas units. This capacity factor does not appear to be based on actual operations and does not match with the reality of today's energy markets.

Our Port Washington Generating Station is an 1,150 megawatt natural gas powered generation station that replaced a 1930s coal-fueled plant. The two units at Port Washington (placed in service in 2005 and 2008) are the most thermally efficient generating units in Wisconsin. This past year, the very efficient units at Port Washington operated at just half of the proposed capacity factor ... 35% in 2013. Increasing the capacity factor will certainly impact natural gas supply and increase costs for our customers.

Impact to State of Wisconsin

\$175-\$350 million is the high level annual cost estimate for Wisconsin to implement EPA's four building blocks in 2020. This estimate increases to \$300-600 million by 2030.

Wisconsin's 34% Goal Is Above the 30% National Average

EPA set state specific emission rate goals to lower CO2 emissions from power plants. This goal amounts to a nationwide average of about a 30% mass reduction from 2005 emission levels by 2030. The goal that EPA set for Wisconsin is 4% higher than the nationwide average ... at 34%.

Building Blocks Could Cost Wisconsin Residents Nearly \$300 Million in 2020

Building Block 1 calls for unit specific efficiency improvements, which EPA estimates will save an average of 6% across the fleet. Much of the efficiency improvement that EPA proposes is already occurring. Instead, a 1%-2% efficiency improvement could be technically feasible. EPA also assumes that a 6% efficiency improvement can be achieved at a cost of \$6-12 per tonne, but utility analysis shows a much higher cost to achieve and maintain this level. *The high level annual cost estimate for Building Block 1 for Wisconsin is \$25-75 million. A 2% or lower target would be more technically feasible.*

Building Block 2 calls for a re-dispatch from coal to combined cycle natural gas with a 70% capacity factor. Building Blocks 1 and 2 are in conflict ... if companies increase gas plant operations to achieve a 70% capacity factor, then presumably the companies would decrease coal plant operations. Coal efficiency improvements (Building Block 1) are negated because coal plants are less efficient when they operate less. *The high level annual cost estimate for Building Block 2 for Wisconsin is \$80-170 million for 2020-2029.*

Building Block 3 calls for increased use of low- and zero-carbon generating capacity. It is not clear how power purchase agreements for out-of-state projects, including contractually obligated renewable energy credits, will be considered. *The high level annual cost estimate for Building Block 3 for Wisconsin is \$15-30 million in 2020, increasing to \$150-300 million by 2029, over and above the current Wisconsin energy requirement, and assuming the Production Tax Credit is extended.*

Building Block 4 calls for expanded use of demand-side energy efficiency. As required by state law, Wisconsin's utilities contribute to Focus on Energy, the statewide energy efficiency and renewable resource program. *The high level annual cost estimate for Building Block 4 for Wisconsin is \$60-65 million for 2020-2029, over and above the current contributions to Focus on Energy.*